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Posttraumatic Growth and Residential Therapy: Cultivating Environments that Support and Facilitate Posttraumatic Growth and Positive Well- being.

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Posttraumatic Growth and Residential Therapy: Cultivating Environments that Support and Facilitate Posttraumatic Growth and Positive Well-being.

Abstract

Residential therapy is intended for those needing mental health crisis intervention. The well-being of these people cannot be overlooked and should take an active role in the treatment process, especially for those struggling with the symptomology of posttraumatic stress. By utilizing both positive psychology and posttraumatic growth theory and practice, participants in residential therapy may strengthen personal well-being thus encouraging the posttraumatic growth process. Focusing on positive affect, engagement, relationships, meaning, and achievement can stimulate and support posttraumatic growth in an intentional setting such as residential therapy. This will shift treatment goals and outcomes away from deficit diagnosis and recovery and, instead, prioritize healthy well-being practices, strength development, and encourage growth opportunities.

Keywords

posttraumatic growth, positive psychology, well-being, residential therapy, therapeutic program, young adults

Disciplines

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Posttraumatic Growth and Residential Therapy: Cultivating Environments that Support and
Facilitate Posttraumatic Growth and Positive Well-being.

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University of Pennsylvania

A Capstone Project Submitted

In Partial Fulfillment of the Requirements for the Degree of
Master of Applied Positive Psychology

Advisor: Dr. Richard Tedeschi

August 1, 2018

Posttraumatic Growth and Residential Therapy: Cultivating Environments that Support and Facilitate Posttraumatic Growth and Positive Well-being.

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Capstone Project

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Introduction to Positive Psychology

Throughout human history, it seems people have always been interested in achieving ‘the good life’. Ideas for how to attain happiness, contentment, and personal fulfillment can be found in religious texts, philosophical writings, and modern-day self-help books. People have spent a great deal of time studying happiness and well-being and, according to McMahon (2017), it was during the Industrial Revolution when people began to view their happiness and well-being as basic human rights, capable of being created and controlled. With this in mind, as people evolve so does the understanding of happiness and well-being. Seligman (personal communication, September 6, 2017) believes that humans are at the start of the second Axial Age and, as people begin to see happiness and well-being as a right, free and accessible to all, a wave of enlightenment emphasized by choosing ‘the good life’ will follow. Related to this identification of happiness and well-being as human rights, Pawelski (2016) suggests that all people strive for a flourishing life of well-being and, furthermore, require it as if it were any other basic need.

In 1998, Martin E. P. Seligman coined the term positive psychology (Peterson, 2006). Seligman believed that Western culture was placing too much emphasis on deficit diagnosis and, as a result, there was an inadequate amount of energy and resources directed towards understanding strengths. According to Seligman (Peterson, 2006), placing more emphasis on understanding and mobilizing one’s strengths can elicit positive change and feelings of fulfillment in a person. Many people who hear the term ‘positive psychology’ assume the focus of the field is on happiness, positivity, and optimism (Peterson, 2006) and, while each of these components has a proper place within positive psychology, Seligman’s intention behind popularizing the field was to raise awareness and increase opportunities for people to flourish

and thrive under eudaimonic well-being. Flourishing refers to the experience someone has when his/her life is going well (Peterson, 2006) and combines feeling good with functioning effectively (Huppert & So, 2013). Eudaimonic well-being is living in the presence of personal development and growth, which are dependent on deep morals and values (Ryan and Deci, 2001). Eudaimonic well-being is the search for finding and evolving into one's best self. Positive psychology is a science-driven field that engages eudaimonic well-being and flourishing theories in the study of what makes people thrive (Peterson, 2006).

Eudaimonic well-being and flourishing are key components of positive psychology and are instrumental to Seligman's five pillars of well-being: positive affect, engagement, relationships, meaning, and achievement (Seligman, 2011). Positive affect refers to those emotions that have a supportive and encouraging impact on well-being. Engagement occurs when people are absorbed by activities associated with feelings of fulfillment and joy. Relationships encompass the social support system people feel they can rely on. Meaning refers to the search for, and presence of, a higher purpose in life. Achievement is having goals and aspirations that lead to a greater sense of accomplishment which, in turn, leads to numerous positive outcomes (Seligman, 2011). In order to be considered a pillar of well-being, each of these elements must be capable of leading to one's well-being on its own, independent of any of the other elements (Seligman, 2011).

While positive psychology's focus is on how people do well, it does not ignore the negative emotion and adversity that marginalizes one's well-being on an almost daily basis (Peterson, 2006). Positive psychology does not aim to be relentlessly optimistic and joyful no matter the situation; but rather, it offers an option for growth, development, and strength while embracing life and all of its challenges (Peterson, 2006). As previously mentioned, Pawelski's

(2016) idea that all humans strive for, and even require, well-being to function is an important notion to consider when defining positive psychology. “All humans” is a broad category which can, and should, include clinical populations struggling with the negative emotional and behavioral effects of trauma because they, too, have the desire for, and the right to, positive well-being. This paper will discuss the benefits of utilizing positive psychology theory, research, and practice in a mental health residential treatment setting in order to cultivate an environment of well-being in hopes of stimulating organic posttraumatic growth (PTG) in young adults experiencing posttraumatic stress disorder (PTSD) symptomology.

Trauma and Residential Treatment

Natalie was an 18-year-old woman who was enrolled in a wilderness-based residential treatment program following an increase in risky behaviors, including alcohol and substance abuse, promiscuity, and truancy. Natalie spent her days backpacking through the mountains of western North Carolina, learning wilderness survival skills and talking about her emotional struggles. During one particularly grueling hike in the summer heat, Natalie threw her backpack to the ground and screamed, “Why am I here being punished for being raped when my perpetrator is at home enjoying his last summer before college?” The staff who were leading Natalie’s expedition were speechless. This was the first Natalie had spoken about the traumatic event. Why indeed? The treatment program was intended to build strength and resilience, not to serve as a punishment for unruly behavior; however, Natalie was perceiving it as a very negative experience. In that moment, it could not have been more clear that in order to instill lasting positive change, especially within someone who has experienced trauma, residential therapy programs need to focus on the well-being of their participants.

According to the studies, nearly 68% of children and adolescents experience a traumatic event before the age of 16, with 13.4% developing symptoms of PTSD (Copeland, Keeler, Angold, & Costello, 2007). The DSM-V explains posttraumatic stress disorder as the exposure to real or perceived danger, neglect, and/or intrusion that negatively impacts psychological functioning in a persistent, detrimental, and disruptive way (American Psychiatric Association, 2013). The effects of PTSD can lead to a decline in psychological, emotional, and behavioral states presenting in the forms of suicide attempts and suicidal ideation, self-harming tendencies, dissociation, risky behaviors, isolation, depression, and anxiety (American Psychiatric Association, 2013). In extreme cases, young people are unable to independently cope with the aftermath of a traumatic experience and may be placed in residential treatment centers for up to 24 months in order to receive the psychological treatment necessary for healing and processing the trauma (Curtis, Briggs, & Behrens, 2018). Those who enroll in residential treatment after a traumatic event are struggling with issues that are not conducive to functioning in society including debilitating anxiety and/or depression, using substances to self-medicate or numb feelings, promiscuity, truancy, aggression towards others, or any of the aforementioned PTSD symptoms. Ultimately, they are unable to cope with the effects of trauma without intervention and are often at risk for harming themselves or others (Curtis et al., 2018).

Participants in residential treatment can benefit from the theories, research, and practice models of positive psychology, not in the form of crisis intervention, but as an additional source for supporting general life satisfaction and well-being. When people are admitted into a residential treatment facility, they are often in crisis and, as such, are at an increased risk for harming themselves or others (Ciardiello, 2003). For this reason, their independence will likely be extremely limited once they are enrolled in a treatment program. Even though the intention is

to keep the participant safe, limiting independence, resources, and communication with friends and family can have a large negative impact on participants' already low levels of life satisfaction (Ciardiello, 2003). For example, when a young adult female is admitted into a residential treatment facility for suicidal ideation, self-harming behaviors, and aggression towards family members after a traumatic experience, her already low levels of life satisfaction decrease further because she has been removed from the familiarity of her home and the few comforts that bring her relief from her struggles. Though removal from her environment and placement in an intensive clinical intervention is necessary in order to keep her and her family members safe, it remains imperative to focus on her well-being while in treatment.

Pawelski's red cape/green cape model suggests that interventions, or activities used to enhance one's situation, can be divided into two categories (J. O. Pawelski, personal communication, September 10, 2017). The red cape theory speaks to clinical populations and crisis intervention; meaning there is a sense of urgency to fix an existing problem. The red cape theory is useful and necessary for crisis intervention and short-term solutions but little attention is given to the root of the crisis. The green cape theory promotes preemptive measures to maintain flourishing; meaning taking proactive steps to avoid experiencing preventable problems. In the green cape theory, interventions are implemented to create long-term solutions and maximize strengths, effectiveness, and efficiency (J. O. Pawelski, personal communication, September 10, 2017). Relating to using positive interventions for mental health treatment, it is believed that because clinical populations do not live in a constant state of crisis (Redmond, 2017), they would benefit from the green cape theory in addition to the red cape theory. While participants in residential treatment are often in a state of crisis, and enter into treatment for the purpose of learning how to regain their emotional and behavioral functionality, happiness and

well-being should still be a priority and, in so doing, a stable baseline can be formed and participants can begin to thrive (Redmond, 2017).

Participants enrolled in residential treatment programs have the right to well-being and happiness throughout their treatment process. If the goal is to increase well-being and create a flourishing life for all people, those struggling with the symptomology of PTSD can begin the process during their treatment and healing journeys. By focusing on enhancing positive affect, engagement, relationships, meaning, and achievement as they stabilize emotionally and behaviorally, participants can have the opportunity to grow their strengths and increase their well-being (Seligman, 2011). It is imperative for facilitators at residential treatment programs to be trained intentionally in clinical and positive psychology in order to provide a safe, hopeful, and supportive environment for these attributes to be generated and to flourish. It is important for facilitators to be well-versed, not only in clinical psychology, but also in positive psychology. Knowledge of both approaches can aid in the implementation of a well-rounded program that will allow participants to regain an emotional and behavioral baseline as well as provide an opportunity to develop strengths, self-efficacy, resilience, and overall well-being. All of these emotional and behavioral gains may contribute to the cultivation of posttraumatic growth (Tedeschi, Shakespeare-Finch, Taku, & Calhoun, 2018). It is, after all, their human right to be happy and flourishing again (McMahon, 2017). It is Natalie's right to feel empowered despite of her trauma, not punished because of it.

Introduction to Posttraumatic Growth

The study of posttraumatic growth pre-dates positive psychology, but shares a common ground in that both areas of focus strive to look beyond finding diagnoses and solutions for depreciation and malady, and towards strength-based growth, adaptation, and well-being

(Tedeschi et al., 2018). In its simplest terms, posttraumatic growth is the ability to find and experience positive change and growth opportunities following highly adverse or traumatic situations (Tedeschi & Calhoun, 1996). Coining the term in the mid-1990s, Tedeschi and Calhoun (2004) chose the verbiage “posttraumatic growth” to include four specific criteria: it calls attention to major trauma disruptions instead of common stressors; those who experience growth after trauma describe the process as transformative; the growth is reported as an ongoing process versus being a coping mechanism; and disruption of core beliefs that coexists with traumatic distress is required.

Posttraumatic growth is the positive change that results from the process of reassembling core beliefs, rewriting life narratives and goals, and understanding new and different outlooks on life norms that have been shattered by a traumatic event (Tedeschi et al., 2018). This process is referred to as cognitive processing, a repetitive thought system that can either be intrusive and foreboding or be reflective and lead to an understanding in, and problem solving through, the traumatic event (Lindstrom, Cann, Calhoun, & Tedeschi, 2013). Studies show that cognitively processing trauma in a deliberate and intentional way is positively correlated with posttraumatic growth. This can be done by creating a new life narrative using the traumatic event as a turning point and establishing new and relevant life goals to encourage healing and growth (Lindstrom et al., 2013). A life narrative is an evolving story of one’s identity dictated by life experiences, beliefs, and perspectives (Tedeschi et al., 2018). After experiencing a traumatic event, one’s understanding of life expectations is shattered. Rewriting a life story to incorporate the traumatic event is pertinent to posttraumatic growth (Tedeschi et al., 2018).

Posttraumatic growth is a highly individualized and long-term process that occurs simultaneously with posttraumatic stress (Tedeschi & Calhoun, 2004). Posttraumatic growth

does not suggest a ‘grin and bear it mentality,’ nor does it promote optimism and unwavering resilience. The theory of posttraumatic growth recognizes the difficulty of emotional and behavioral struggles through the symptomology of posttraumatic stress, the mourning of real and perceived loss, and determines that, for the most part, growth can develop in conjunction with struggle and distress (Baker, Kelly, Calhoun, Cann, & Tedeschi, 2008). The rate and intensity of posttraumatic growth may depend on the type of trauma experienced, the individual’s personality and culture, and the centrality of the event itself (Tedeschi et al., 2018). All these factors are important to the individualized process and needs of each person. An empirical study done by Baker et al. (2008) supports the theory that posttraumatic growth and posttraumatic stress are separate constructs and discourages clinicians from solely focusing on positive growth when working with people who have experienced trauma. With this in mind, a medical study found that the relationships between posttraumatic stress, depression, and low quality of life were weakened by increased levels of posttraumatic growth (Morrill et al., 2008).

Most empirical studies focused on posttraumatic growth have used the Posttraumatic Growth Inventory (PTGI) developed by Tedeschi and Calhoun in 1996 to measure positive change in five predetermined factors (Calhoun & Tedeschi, 2004). Those factors include greater appreciation of life, greater sense of personal strength, recognition of new possibilities or paths for one’s life, spiritual development, and an increase in intimate relationships (Calhoun & Tedeschi, 2004). The PTGI was retested in 2008 and found to be consistent in validity (Taku, Cann, Calhoun, & Tedeschi, 2008). It is important to note that growth may not develop in all these categories at the same rate, or at all, as some people who have experienced trauma will not gain benefits from posttraumatic growth (Calhoun & Tedeschi, 2004). Clinicians are advised to

not require or force growth upon anyone who is experiencing psychological distress or struggle from trauma (Tedeschi et al., 2018).

While not everyone will experience posttraumatic growth, and processing a trauma is highly individualized, the PTGI can measure significant change through the growth process, and studies focused on posttraumatic growth can support the idea that cultivating posttraumatic growth in a residential treatment setting could be a valuable option for young adults struggling with traumatic stress. In a two-year study done on women with breast cancer, Danhauer et al. (2013a) found that posttraumatic growth developed relatively soon after diagnosis, increased overtime, and showed the greatest increases in college graduates, and in women with high levels of personal meaning, spirituality, and a solid social support system. With this in mind, a long-term treatment process like residential therapy would likely be able to support and/or facilitate posttraumatic growth. In another study done by Danhauer et al. (2013b), outcomes supported the idea that posttraumatic growth increases and strengthens over time. The study showed that patients who were younger in age and had experienced more intense challenges to their core beliefs experienced the most positive change and growth. From this, one can speculate that young adults who are unable to function without support due to intense trauma are a promising population for cultivating posttraumatic growth in a residential therapy setting. In a study examining posttraumatic growth in refugees from war-torn areas, findings revealed that people who were displaced to supportive and positive environments post-trauma were more likely to experience positive growth and change (Powell, Rosner, Butollo, Tedeschi, & Calhoun, 2003). This is another indicator that residential therapy could be a valuable option for supporting posttraumatic growth. Furthermore, and perhaps most reassuringly, Danhauer et al. (2015) found that long-term posttraumatic growth is not likely to diminish once positive changes have taken

place. With a long-term, intensive treatment process such as residential therapy, the growth and positive change that is created and maintained during the program should have lasting effects.

Related to lasting positive change, it is important to note that posttraumatic growth and resilience are two different constructs. Resilience is the ability to bounce back from hardships and adversity in the moment; whereas posttraumatic growth is the process of experiencing positive change beyond the individual's pre-trauma baseline despite the traumatic event and through an extensive and long-term cognitive process (Tedeschi et al., 2018). Studies have found there to be an inverse relationship between resiliency and growth (Levine, Laufer, Stein, Hamama-Raz, & Solomon, 2009). It is theorized that resilient people are more equipped to handle trauma, thus core beliefs are not shattered, rendering it unnecessary to experience posttraumatic growth. Showing little distress or growth after a traumatic event may be signs of healthy resilience (Levine et al., 2009). Those who need residential treatment because they are unable to support their own emotional and behavioral needs after a traumatic event may not have high levels of organic resilience and, therefore, may be good candidates for experiencing posttraumatic growth and developing resilience. Studies show that people with higher levels of cognitive and emotional sophistication may be more apt to process trauma, whereas people with fewer cognitive and emotional resources will be at greater risk for negative trauma symptomology (Calhoun & Tedeschi, 2004). Developing and maintaining a repertoire of psychological resources may allow one to adapt better and to grow. Research shows that older adolescents and young adults have the capability to build resilience, to find growth in times of adversity, and to live flourishing lives (Arpawong et al., 2016). Embracing and supporting the possibility of positive change and growth in addition to understanding trauma symptomology in

mental health settings, specifically residential treatment programs, may lead to healing a trauma and to posttraumatic growth (Wolchik, Coxe, Tein, Sandler, & Ayers, 2008).

PERMA and Posttraumatic Growth

Studies have shown a significant link between positive well-being and posttraumatic growth. In a meta-analysis comprised of 87 cross-sectional studies from 77 articles, positive well-being has been shown to be significantly related to posttraumatic growth (Helgeson, Reynolds, & Tomich, 2006). Studies in the past have shown inconsistent results about the relationship between posttraumatic growth and well-being. However, a study done by Cann, Calhoun, Tedeschi, and Solomon (2010) found that posttraumatic growth was positively related to quality of life and negatively related to posttraumatic depreciation. This informs the idea that both negative and positive change need to be taken into consideration when quantifying well-being for people who have experienced a significant traumatic event (Cann et al., 2010). Joseph and Linley (2005) suggest that it is possible for one to feel negative emotions and still experience well-being in the form of greater appreciation for life. Triplett, Tedeschi, Cann, Calhoun, and Reeve (2011) agree and believe that there is a weak association between general well-being and overall posttraumatic growth, but that there is a higher relationship between the posttraumatic growth factors of meaning and purpose and well-being. Achieving greater positive well-being and life satisfaction after a traumatic event is a long-term process (Jayawickreme & Blackie, 2014), and while posttraumatic growth is typically developed organically, it can be cultivated gradually through intentional intervention (Tedeschi et al., 2018). Roepke (2013) suggests that greater understanding of the relationship between eudaimonic well-being and posttraumatic growth is needed to fully grasp the potential of flourishing in trauma survivors. In her meta-

analysis of intervention and posttraumatic growth, she discusses how intentional intervention does foster posttraumatic growth, but more research on specific effectiveness is needed.

In review, the five pillars of well-being are: positive affect, engagement, relationships, meaning, and achievement, or PERMA (Seligman, 2011). This paper is organized by these five pillars of well-being with the five factors of posttraumatic growth woven into each section. The five factors of posttraumatic growth are greater appreciation of life, greater sense of personal strength, recognition of new possibilities or paths for one's life, spiritual development, and an increase in intimate relationships. By focusing attention on the five factors of posttraumatic growth through PERMA over a long-term and intentional process like residential therapy, both eudaimonic well-being and positive growth may develop despite the symptomology of trauma. This paper will continue by exploring the possibilities of these well-being and posttraumatic growth relationships in hopes of inspiring positive and lasting change through residential therapy treatment modalities.

Positive Affect

The P in PERMA stands for positive affect which refers to emotions that have a supportive and encouraging impact on well-being (Seligman, 2011). Fredrickson (2009) believes emotions are temporary micro-moments that can be built, strengthened, and broadened upon. According to Fredrickson's (2009) broaden and build theory, positive emotions can literally broaden the visual peripheral, thereby allowing for the integration of more external information. She believes that when information is perceived as positive, there can be an extremely subtle shift away from a neutral mindset and towards a positive mindset. Positive affect can most commonly be found in 10 forms: joy, gratitude, serenity, interest, hope, pride, amusement, inspiration, awe, and love (Fredrickson, 2009). These positive emotions are highly individualized

and dependent on personal interpretations and perspectives. When positive emotions are felt internally, personal and emotional views and perceptions can be broadened to allow for the integration of information and building of positive emotional resources (Fredrickson, 2009). Broadening and building creates a positive upward spiral in which new experiences and new perspectives can be formed in various psychological and emotional aspects of life, and can be used to develop resiliency for future adversity (Fredrickson & Joiner, 2002). Broadening perspectives and building positive emotional resources will aid in the development of posttraumatic growth. Learning how to broaden and build off of micro-moments of positive affect can improve well-being for individuals struggling with the effects of trauma and may promote growth in various areas including having an appreciation for life and in seeing positive meaning for the future (Fredrickson & Joiner, 2002).

During traumatic events, the body and brain rely on biological coping mechanisms called fight or flight. Evolutionarily, fight or flight is a crucial reactionary state that automatically engages during survival situations (Peterson, 2006). Unfortunately, many people who have experienced trauma continue to respond to triggering situations in a fight or flight manner even after the crisis has subsided. This perceived danger, and the negative emotions that are aroused by it, can create a highly intense level of motivation to stay safe that narrows attention and focus, blocking the ability to understand that there is no immediate danger (Harmon-Jones, Gable, & Price, 2013). Fredrickson (2013) believes building growth and resilience and broadening on positive emotions and perception is as important as fight or flight in perceived survival situations and will aid in rationalizing responses to these situations. The broadening of awareness alleviates the hyper-focus that is triggered when danger is perceived and allows one to incorporate more information into judgments and actions (Fredrickson, 2013). Broadening and building creates a

positive upward spiral which allows room to learn from new experiences and form new perspectives and ideas in psychological and emotional aspects of life (Fredrickson & Joiner, 2002). For example, when people who have experienced trauma are able to see hope amid their struggle, they can use that hope to motivate themselves as they work to regain freedom from the negative effects of trauma.

Broaden and build theory aims to create an upward spiral of positive emotions and coping skills while also respecting and appreciating the negative emotions that will inherently arise while processing trauma (Fredrickson & Joiner, 2002). Negativity can promote healthy functioning through the understanding of judgment and consequences, and positivity can promote flourishing through excelling at positive well-being and coping skills (Fredrickson, 2013). Finding the balance between negative and positive emotions is important for posttraumatic growth and for overall life satisfaction (Fredrickson & Joiner, 2002). A meta-analysis of 87 cross-sectional studies also found that posttraumatic growth was positively related to increases in positive affect (Helgeson et al., 2006). In a study looking at the well-being factors of posttraumatic growth, results found that positive affect was one of the main contributors to positive growth (Mangelsdorf & Eid, 2015).

Related to personal growth, and returning to the idea that processing a trauma can be achieved in a residential treatment setting, it is useful to consider how participants in a residential therapy program are often experiencing an emotional, behavioral, and/or psychological crisis when admitted into these kinds of programs (Curtis et al., 2018). Part of the treatment process is to help participants understand the reasoning behind their behavior patterns and judgments. Acknowledging, understanding, and normalizing trauma reactions and emotional triggers are key elements of posttraumatic growth interventions (Tedeschi et al., 2018). By focusing on emotional

self-awareness, self-perspective awareness may also increase. Internal and external experiences shape one's views of the world and life (Holzel et al., 2011). People who have experienced trauma can have their self-perspective views and core beliefs skewed due to adverse thoughts and experiences (Arpawong et al., 2016). By developing awareness, participants can reflect on the experiences and, in doing so, decrease their personal judgments and regulate their reactions linked to those experiences (Smalley & Winston, 2010). The distinction between the self and the experience can lead to a more positive and thorough understanding of self-identification and appreciation (Arpawong et al., 2016).

Self-regulation is having the ability to regulate physiological and emotional factors in the moment (Baumeister, Gailliot, DeWall, & Oaten, 2006). It is also the ability to acquire the foresight to track and change negative internal and external emotions and behaviors. Learning how to manage and regulate emotional distress are key components of posttraumatic growth (Tedeschi et al., 2018). Working to reduce distracting and perseverating thoughts or the avoidance of thoughts will improve one's awareness of emotions (Baumeister et al., 2006). Noticing triggers without reacting to them, while also focusing attention on safety in the present moment, may decrease emotional reactivity. Participants may learn how to overcome their negative emotional response habits by obtaining cognitive control over these emotions (Baumeister et al., 2006). The ability to control emotional responses and response patterns has stress-reducing effects and may allow for a healthy emotional baseline (Holzel et al., 2011).

Posttraumatic growth promotes a greater appreciation for positive experiences and opportunities and aids in establishing self-efficacy and self-awareness within young people (Arpawong et al., 2016). Participants admitted into therapeutic residential programs are often experiencing intense negative emotions at the time of admission; however, upon stabilization, a

participant can return to a neutral emotional baseline (Curtis et al., 2018). At that time, by focusing on the broadening and building of positive emotional experiences, the participant can gain new insights and learn positive emotional resources (Fredrickson, 2007). For example, when participants are triggered by negative feedback, they can compensate with strengths and build on their areas of growth instead of cycling into self-depreciation. Staff can encourage interventions that focus on positive broadening and building to assist young adults in learning the emotional self-awareness and self-regulation skills necessary for healthy well-being (Fredrickson & Joiner, 2002).

The shattering and rebuilding of one's core beliefs is an integral factor in posttraumatic growth (Tedeschi et al., 2018). This rebuilding process could take place during residential treatment through intentional intervention. In order to identify and understand that core beliefs have been shattered and need to be rebuilt, one must cognitively process the traumatic event thoroughly. People who have experienced trauma often think about the event incessantly in order to try to make sense of the experience and/or to learn how to protect themselves from a future event (Tedeschi et al., 2018). Taku, Cann, Tedeschi, and Calhoun (2009) identify two main categories of these cognitions: brooding and reflective processing. Brooding is an inactive engagement with negative thoughts. For instance, perseverating on the details of the event without drawing any sense of conclusion or problem-solving is an example of brooding. Reflective processing, on the other hand, is actively and intentionally directing thoughts to reach specific goals or outcomes (Taku et al., 2009). For example, processing the event in a calculated manner in order to find purpose, meaning, or future outcomes within the situation is a way to demonstrate reflective processing.

Furthermore, Stockton, Hunt, and Joseph (2011) explain how reflective rumination can be used to help people understand trauma and to problem solve in their healing process. Studies show that intentional and reflective cognitive processing are predictive of posttraumatic growth, especially when the processing takes place recently after the event (Taku et al., 2009). In a study done with college-age students who have experienced a stressful or traumatic event within two years of the study beginning, the previous findings were intensified when reflection was carried out in the form of disclosure to someone else, and even more so when the disclosure was focused on the meaning and understanding found in the growth process (Lindstrom et al., 2013). These findings suggest that if young adults were admitted into a residential treatment program within two years of a traumatic experience, instructive intervention of reflective rumination could help initiate posttraumatic growth. It also suggests that strengthening the pillars of well-being of meaning and relationships could also support the development of posttraumatic growth (Lindstrom et al., 2013).

For participants who are having difficulty breaking their cycle of negative and passive brooding, clinicians may help initiate the reflective process by building rapport with the participants, creating an emotionally safe space for disclosure, and helping to guide the participants through active reflection of the event (Lindstrom et al., 2013). This can help stimulate identification of shattered core beliefs and begin the process of making sense of the event in order to rebuild core beliefs and set goals that are aligned with new views and beliefs (Tedeschi & Calhoun, 2004). Participants may then realize they can create their own future narratives by understanding that the traumatic event was a turning point in their core belief structure (Tedeschi et al., 2018). This will lead to a revised version of their original core beliefs, which will encourage new life aspirations, meaning, and the building of resilience for future

adversities (Tedeschi et al., 2018). When young people who have been through a traumatic event learn to balance their positive and negative emotional states and build on their positive affect, they can experience posttraumatic growth, create lives of positive well-being, and begin to flourish (Fredrickson, 2013).

Developmentally, young adulthood is a convenient time period for such personal growth to occur (Somerville, 2016). Studies show that young adults are particularly optimistic about future goals (Arpawong et al., 2016). Young people are learning how to become independent and self-sufficient by beginning to assume mature responsibilities and by finding meaning in life. Due to developmental changes, young people tend to have a greater ability to adjust during times of adversity and to create resilience (Arpawong et al., 2016). With treatment, participants can find healing and growth by understanding trauma responses, cognitively process and reconstruct their core beliefs, and draw upon positive emotions and hope for future goals (Tedeschi et al., 2018). These intentional steps can lead to a greater ability to embrace positive change, build psychological resiliency, and manage adversity in the future (Fredrickson & Joiner, 2002). As participants continue to broaden and build their positive affect, while also developing self-awareness and self- and thought-regulation, long-term change and positive overall well-being, coupled with a greater appreciation for life, can be instilled (Fredrickson & Joiner, 2002).

Engagement

The E in PERMA stand for engagement which is the process of becoming absorbed by an activity associated with feelings of fulfillment and joy (Seligman, 2011). Oftentimes, after a traumatic event has shattered one's life views and core beliefs, what once was meaningful seems trivial and/or not applicable (Roepke & Seligman, 2015). When this happens, people must form new beliefs, find new meaning, and form new goals for their lives that are relevant to their

growth process in order to move beyond the trauma and experience health and well-being once more. Roepke and Seligman (2015) suggest that people are prospective in nature and look toward future possibilities to determine how they act and feel in the present. Their study, which measures the relationship between engagement and posttraumatic growth, concludes that, while there is a need for more research, seeking new perspectives and opportunities in which to engage may encourage the development of posttraumatic growth (Roepke & Seligman, 2015).

Considering the importance of these new perspectives and opportunities for engagement, enrolling in a residential treatment program presents a new experience in and of itself. If participants are willing to stay enrolled in this type of treatment program, they may already be exhibiting characteristics of willingness and, as a result, may be beginning the process of growth. To support posttraumatic growth when recognizing new possibilities for one's life path, residential treatment programs must give participants the opportunity to explore new activities and ideas post-trauma (Tedeschi et al., 2018). Providing opportunities for exploration in experiential activity and healthy lifestyle patterns, and supporting a sense of openness to these new experiences, can result in positive change. Fredrickson's (2009) broaden and build theory can again be used to encourage the empowerment and growth that stems from engagement.

Experiential and creative therapies.

Integrating experiential therapies into residential treatment programs can be a way to initiate engagement in an intentional manner. Studies show that utilizing creative arts can have a significant positive impact on promoting posttraumatic growth (Garland, Carlson, Cook, Lnasdell, & Speca, 2007). Furthermore, there are many studies that support the benefit that creative arts can have on one's well-being. For example, in a study done by McKenna, Havey, and Martin (2010), participants spoke about the sense of empowerment they found during a

bibliotherapy experience. Participants recounted that reading intentionally chosen books and drawing parallels to their own lives allowed for a greater sense of personal control over their emotions and behaviors, empowered them to reflect more deeply on the meaning in their lives, and instilled hope for personal change and future success (McKenna et al., 2010). In addition to bibliotherapy, creative arts has also been found to be an effective way of incorporating experiential therapy into mental health treatment. A study done by Dalebroux, Goldstein, and Winner (2008) found that creating art had a short-term effect on mood through two platforms. The first platform was venting, which is the awareness and expression of negative emotions. They found that venting one's emotions could intensify a negative reaction. The second platform was fantasizing, which involved creating art that represented a positive fantasy that distracted from the negative emotion and built on a positive emotion (Dalebroux et al., 2008). Finally, along with reading and creating art, a study by Vastifjall, Juslin, and Hartig (2012) asked participants to log their daily activities in conjunction with emotions experienced during those activities and then to identify if there was music present. Vastifjall et al. (2012) found that the majority of participants reported that music was influential for their emotional output. Positive emotions and arousal states were reported as stronger and more intense with music present (Vastifjall et al., 2012).

According to Tay, Pawelski, and Keith (2018), there are four mechanisms for experiencing creative arts that can lead to positive effects on well-being: immersion, reflectiveness, socialization, and embeddedness. The first mechanism is immersion, which defines the physical and emotional sensory stimulation drawn from the experience. Second, reflectiveness can create both internal and external changes in emotions and behaviors. Third, socialization, encompasses the relational ties that bind friends, communities, and societies to an

experience. Fourth, and finally, embeddedness speaks to the ability to form and maintain positive habits from the experience. Using Tay et al.'s (2018) four mechanisms to engage in creative arts can be a powerful tool for elevating levels of life satisfaction, well-being, and positive growth for those in a residential treatment setting, especially if the participants are able to self-select their activity preferences.

The first identified mechanism, immersion, can provide participants with a sensory stimulating experience that does not require words for the expression of pent-up emotions and feelings (Tay et al., 2018). The arts and humanities can provide a distraction from unwanted or overwhelming thoughts and feelings, and can be used as a rejuvenating break from intensive treatment (Vastifjall et al., 2012). For example, reading and writing literature can be used to help clinical populations re-engage in something outside of themselves that is, hopefully, not too overwhelming or intimidating. Selecting books based on individualized academic, personal, and clinical needs is a low-cost, flexible, and accessible intervention that may be used intentionally to increase engagement and overall well-being (Shuai et al., 2018). Another example is creating and viewing art as a means to increase well-being (de Botton & Armstrong, 2016). Positive emotions that are cultivated from looking at visual art can then be broadened and built upon to increase mood and overall well-being (Fredrickson, 2013). Once people know what types of art create upward emotional spirals for themselves, they can surround themselves with it (Dalebroux et al., 2008). Clients in intensive mental health treatment can decorate their rooms with positive artwork that brings them joy, empowerment, and perceived control. This practice could also be beneficial for clients as a path towards understanding emotional triggers and psychological needs (de Botton & Armstrong, 2016). Staff can do the same with offices and common spaces. Decorating living spaces and workspaces with empowering and positive art could be used as an

intervention and/or growth opportunity for the enhancement of well-being, productivity, and effectiveness as clients work through their treatment and as staff provide services for the clients (de Botton & Armstrong, 2016).

The second mechanism of engagement in the arts is reflectiveness. Reflectiveness can be used while listening to music, reading literature, or viewing art. For example, mindfully listening to music can allow space for participants to create their own epiphanies about their treatment process, and life in general, which could instill greater intrinsic motivation to change negative and unhealthy patterns (Tay et al., 2018). Another example may be increasing meaning and general well-being for clinical populations by empowering them to find hope and by allowing for improved insight of self through reading and writing literature (Shuai et al., 2018). When battling with anxiety and depression, finishing a novel and speaking knowledgeably about the content can seem like a monumental step towards recovery and well-being (Shuai et al., 2018). Viewing art can help broaden awareness of others, build appreciation for things otherwise taken for granted, and expand self-perspectives and emotions (de Botton & Armstrong, 2016). In learning about finding appreciation for things often taken for granted, art can be used as a platform to reacquaint oneself with the small details of life that are often overlooked (de Botton & Armstrong, 2016). Lastly, in learning about one's self and one's emotions, looking at art can assist with finding a balance between psychological and emotional needs by understanding the origins of one's preferences (de Botton & Armstrong, 2016). For example, people are naturally drawn to pieces of art that they feel they understand or that understands them. If one is feeling sorrowful and sees a painting that accurately represents this sorrow in a visual context, one may feel better knowing that the painter was also experiencing sorrow (de Botton & Armstrong, 2016). An alternative example would be looking at a painting and feeling a connection with it

because it represents something one would like to see in oneself. These are all examples of reflectiveness in practice and can be used intentionally by participants who are cognitively processing their traumas in order to reconstruct their core beliefs.

The third mechanism of engagement is socialization which can also support the relationship factor of well-being. The social aspects of listening to and discussing music with peers will allow the participants to build relationships with one another based on positive commonalities versus sharing negative experiences and behaviors. Music can be a social platform in which participants can dance, laugh, and be silly together as they would if they were not in a treatment facility. Discussing one's emotions and reactions towards books with others, such as in a book club or therapeutic processing group, allows people to be vulnerable about their self-identity and experiences in front of others, thereby strengthening their trust and rapport with peers and facilitators (Shuai et al., 2018). Reading literature allows for a broadening of one's mindset, opinions, and views of others in order to expand appreciation for a meaningful life (Kidd, Ongis, & Castano, 2016). When learning about art, studying pieces can widen perspectives of how others think, act, and view the world (de Botton & Armstrong, 2016).

Fourth, and finally, through immersion, reflection, and socialization, the embedding of new positive habits, coping skills, and realizations can lead to lasting, long-term changes in life satisfaction, well-being, and positive growth. Participants can carry these newly embedded habits with them as they transition out of residential treatment back into their home environments (Tay et al., 2018). Accomplishing small short-term goals, such as finishing a book, creating a playlist of empowering songs, and filling one's room or other living space with positive art can ignite intrinsic motivation for achieving goals on a larger scale, both within treatment and throughout life (Shuai et al., 2018). Creative arts may be used as a pathway to building, maintaining, and

achieving goals and accomplishments, thereby gaining overall well-being, life satisfaction, and positive change, even when participating in intensive mental health services like residential therapy. Experiencing the emotional, social, and behavioral benefits of experiential activities can aid in personal life satisfaction and may increase motivation towards treatment processes.

Csikszentmihalyi's (1990) flow state theory supports this belief.

Flow and grit.

Csikszentmihalyi (1990) describes flow as a psychological state found in highly engaging activities. Flow demands total absorption of focus and control from the mind and body, resulting in a loss of self-consciousness. Flow cannot be reached by mere engagement in an enjoyable activity, but requires a balance between the amount of skill possessed by an individual and the amount of challenge presented by the activity (Csikszentmihalyi, 1990). If the level of skill required is greater than the level of challenge, the participant may feel bored with the activity. Conversely, if the challenge is greater than the skill one possesses, the activity may be anxiety-provoking. When the skill and challenge levels match, flow can be induced and cultivated (Csikszentmihalyi, 1990). If people have the sense of intrinsic motivation to continue growing within themselves, emotional healing is possible with the assistance of flow and grit.

Duckworth (2016) explains grit as effortful passion for long-term goals despite challenges and barriers. She suggests that people with high levels of grit set difficult long-term goals for themselves that require endurance and hard work. When gritty people are successful, it is not necessarily because they are the most intelligent or skilled people, but rather, it is because they possess passionate intrinsic motivation and are unwilling to give up on their goals (Duckworth, Peterson, Matthews, & Kelly, 2007). Furthermore, like flow, grit can be cultivated and nurtured through interest, practice, purpose, and hope (Duckworth, 2016).

Flow experiences can be pathways to developing grit in the forms of interest, practice, purpose, and hope (Duckworth, 2016). Many therapeutic programs incorporate experiential activities into their treatment models, but the idea of using flow to create and build grit into one's self-identity is not often referenced by the residential therapy field. Specific treatment plans for young adults struggling with the effects of trauma, for instance, could incorporate intentional experiential activities in order to build on self-strengths, grit, and intrinsic motivation. Finding an activity that encourages flow will help encourage intrinsic motivation towards that activity (Csikszentmihalyi, 1990). The intrinsic motivation that emerges in flow inspires the development of grit from an internal and passionate place (Duckworth, 2016). Once a flow-inducing activity has been chosen by the participants, they can be provided with opportunities to practice and gain skill competency. It takes grit in the form of practice (Duckworth, 2016) to continue balancing the appropriate skill to challenge ratio needed to experience a flow state (Csikszentmihalyi, 1990). When the skill and challenge is balanced, the activity feels effortless even though so much effort has been expended in the learning process (Csikszentmihalyi, 1990). Flow provides the participants an opportunity to learn and develop self-strengths (Csikszentmihalyi, 1990) and these strengths learned in gritty flow can be applied to other aspects of life (Duckwork et al., 2007).

Applying gritty behaviors (Duckworth, 2016) to activities that induce motivation, passion, and relief from self-consciousness for a period of time can build confidence, encourage the development and growth of self-strengths, and provide feelings of freedom and inspiration to a population who often feels helpless and meaningless (Csikszentmihalyi, 1990). Experiential activities, especially when experienced in flow state, can promote a greater appreciation for life, a greater sense of personal strength, recognition of new possibilities or paths for one's life,

spiritual development, and an increase in intimate relationships, all of which are pillars of posttraumatic growth (Calhoun & Tedeschi, 2004).

Studies suggest that people can find growth through leisure in four different avenues: by discovering new strengths and potential, by fostering interpersonal relationships, through creative cognitive processing of trauma, and by broadening and building on positive emotion (Chun & Lee, 2010). Meaningful engagement can facilitate posttraumatic growth through personal exploration and identity cultivation/reconstruction. Furthermore, there is also a sense of achievement, a pillar of PERMA, felt from gaining competency in activities, which will boost feelings of well-being (Chun & Lee, 2010). With this in mind, there are also studies showing that posttraumatic growth-like outcomes can stem from positive experiences that test core beliefs. When people choose to participate in life-changing positive events, they show similar amounts of growth as life-changing traumatic events (Tedeschi et al., 2018). Roepke (2013) says that this phenomenon should be termed “post-ecstatic growth” (PEG) and goes on to argue that it can promote growth in the five pillars of well-being: positive affect, engagement, relationships, meaning, and achievement. These experiences can encourage the development of character strengths, a greater understanding of meaning in life, and an increase in self-esteem. Roepke (2013) believes there is an overlap between people who experience posttraumatic growth and those who experience post-ecstatic growth, suggesting that there may be a predisposition of growth capability. Though the studies showing a significant relationship between posttraumatic growth and post-ecstatic growth are inconsistent, there is evidence to suggest that it is worth providing participants with opportunities to have impactful positive experiential activities within a residential treatment program as a means to create new positive personal narrative to add to the reconstruction of core beliefs (Roepke, 2013).

As core beliefs are reconstructed, participants can learn how to transfer the resilience, persistence, and positive change developed during experiential activities into all areas of their lives. Learning to use grit prepares participants to handle inevitable future adversity and challenging situations (Duckworth, 2016). The pursuit of grit and flow is not intended to lead participants towards mastery of the flow activity, but rather, the intention is to find coping strategies and apply them in pursuit of overall well-being (Ryan, Huta, & Deci, 2008). Once participants understand their deep passions and strengths, they will be better equipped to make positive life-decisions for themselves, including choosing friends and partners, professions, and long-term goals (Peterson, 2006). By developing strengths, implementing long-term goals, and staying motivated, maintaining a flourishing life is also possible (Peterson, 2006).

Healthy lifestyle.

Along with the engagement that comes from the effort necessary to maintain a flourishing life, another important form of engagement is through creating lifestyle patterns that promote a healthy mind and body. As discussed previously, learning self-regulation techniques is a key component of trauma work (Holzel et al., 2011). Trauma is often associated with physical responses to emotional triggers. People who have experienced trauma may be more susceptible to substance use, auto-immune disease, and other health complications (Ratey & Manning, 2014). Being aware of, and being able to distinguish between, physical sensations and emotional responses can aid in redirecting negative thoughts and even prevent dissociation in situations that are profoundly emotionally distressing (Lee, Zaharlick, & Akars, 2009).

In addition to working as a preventative measure against negative emotional reactions, connection to the body can also aid in increasing focus on positive physical senses and, as such, can stimulate gratitude and joy in the individual (Smalley & Winston, 2010). Ratey (2013)

discusses how activity increases functioning, clarity, and attention within the mind. Clients who are experiencing biological stress responses due to past trauma can benefit from mindfulness meditation and physical activities. Exercise encourages the breakdown and convalescence of muscles, as well as neurons, which helps the body and mind become more resilient (Ratey, 2013). A resilient mind and body helps clients improve their physical fitness and mental determination and adds to the resources acquired from residential therapy to use when managing present and future challenges. Physical adaptation has strong parallels to emotional adaptation. By mindfully evaluating current conditions and experiences, clients can learn to appropriately regulate their emotions and, as a result, adapt to allow a stronger mind/body connection to develop (Ratey & Manning, 2014).

Other physical factors, such as maintaining healthy sleep patterns, eating a balanced and nutritious diet, and drinking plenty of water, can also aid in preemptively meeting biological needs necessary for flourishing well-being (Faulkner, Hefferon, & Mutrie, 2015). Though more long-term studies are needed to understand the physical implications of posttraumatic growth on physical health (Helgeson et al., 2006), it is helpful for participants to reconnect to, and become more aware of, their bodies in order to improve physical health and promote healthier lifestyle choices (Tedeschi et al., 2018). To support this idea, Hefferon, Greal, and Murtie (2008) showed that participants enrolled in an exercise program perceived the program to be beneficial to their health, well-being, and posttraumatic growth process.

As participants in a residential treatment program begin to become engaged in activities that bring them freedom, motivation, and strengths, they can begin to feel more physically and mentally healthy. Feeling a physical sense of well-being and exploring new opportunities, specifically those that induce a flow state and grit characteristics, can encourage intrinsic

motivation for future life possibilities, thus promoting long-term posttraumatic growth and positive overall well-being.

Relationships

The R in PERMA stands for relationships. Social activities and communities are necessary for well-being. Studies show that having meaningful relationships is closely tied to happiness and life satisfaction and that feeling connected socially is a major contributing factor to positive well-being (Gable & Gosnell, 2011). Research also shows that the number of social ties people have in their lives is positively correlated with increased happiness, well-being, and life satisfaction (Gable & Gosnell, 2011). With this in mind, one of the most prominent factors of posttraumatic growth is an increase in intimate relationships and the ability to relate to others (Tedeschi & Calhoun, 2004). Sattler, Boyd, and Kirsch (2014) found that the social network one perceives to have is significantly related to positive growth. Other studies suggest that it is necessary to maintain these social support systems during the posttraumatic growth process, but they are especially crucial when initially establishing growth (Tedeschi & Calhoun, 2004).

In a residential treatment setting, participants are rarely given the opportunity to isolate. Oftentimes, they have roommates, eat meals in groups, engage in group activities, and attend group therapy and processing sessions. This is an excellent opportunity to establish secure and supportive relationships with peers and staff and to participate in self-disclosure (Tedeschi & Calhoun, 2004). Self-disclosure is the act of sharing experiences with others, either verbally or through written word, and it is important to the posttraumatic growth process for a number of different reasons (Prati & Pietrantonio, 2009). Self-disclosure is one of the key elements to posttraumatic growth interventions because it can help mitigate the difficult emotional responses to trauma triggers and can allow one to learn how to self-regulate emotional reactions and savor

positive emotions (Tedeschi et al., 2018). Self-disclosing can aid in cognitive processing while trying to reestablish and reorganize core beliefs. This act of cognitive processing can bring up ideas, values, and foresight that would not have otherwise arisen without deeper introspection. Thus, self-disclosure can be seen as posttraumatic growth on its own right when growth themes and patterns begin to appear in narratives (Tedeschi et al., 2018).

Self-disclosure can also be a means to gain social support. While enrolled in a residential treatment program, participants are most likely struggling with similar issues as their peers. Providing opportunities for the participants to share their stories with each other will not only allow the sharer to feel heard and supported, but hearing others' stories is helpful in realizing that they are not alone in their issues, emotions, behaviors, and views (Tedeschi et al., 2018). This is called mutual disclosure, which is beneficial because participants can discuss similarities and differences in their growth patterns and normalize their trauma responses (Lindstrom et al., 2013). One study with breast cancer patients found that women who had other survivors to role model positive posttraumatic growth outcomes were more likely to experience growth themselves (Morris, Shakespeare-Finch, & Scott, 2012). This could either be an example of mutual disclosure or growth themes and patterns. In a study done with young adults who have experienced a traumatic event, any type of self-disclosure was correlated with posttraumatic growth; however, findings showed more significant links between the disclosure of emerging growth patterns than of negative patterns stemming from the traumatic event (Lindstrom et al., 2013). Though studies have not found empirical evidence that exposure to growth themes pre-trauma is correlated to posttraumatic growth, it is still important during residential therapy to be introduced to the concept of creating and maintaining growth-themes within the culture of the program (Lindstrom et al., 2013).

Self-disclosure.

Self-disclosure, like cognitive processing, aids in helping one find understanding of their trauma and in reconstructing their core belief system (Lindstrom et al., 2013). In order to feel comfortable enough to disclose sensitive and threatening information, one needs to feel supported and emotionally safe within a relationship and/or community. Initial responses to a disclosure can severely impact whether or not the interaction can support growth or positive change (Tedeschi et al., 2018). For example, Tedeschi et al. (2018) refers to an instance in which a mother responded to her daughter's rape allegations in a manner that was rooted in self-interest and showed no empathy or concern about her daughter's situation. This interaction left the daughter feeling deflated, blamed, unheard, etc. An example of a more intentional and supportive response would be for the mother to listen to the daughter and respond to her needs with compassion and encouragement. Licensed mental health therapists and other staff at residential treatment programs should be trained in how to effectively provide productive growth support to participants cognitively processing their trauma experience. This process cannot be forced, prescribed, or even expected. In order to foster growth, staff must be observant of the participants' strengths and positive change, while also being empathetic to the struggle of trauma symptomology (Tedeschi et al., 2018). It is pertinent that staff get to know each participant individually, build solid rapport and relationships, and allow them to construct and reconstruct their life narrative in a fashion that suits their needs (Calhoun & Tedeschi, 2004). Staff need to be able to support participants rather than push them towards growth.

Staff alignment.

Posttraumatic growth is not about reducing distressful symptoms, but rather, it is about regaining health and strength and transforming one's life (Calhoun & Tedeschi, 2004). Instead of

requesting that participants find meaning in their trauma, staff should understand that in order to truly support growth, the participants will need to be in charge of their own process and establish their own goals for the future. Staff are actively supporting the participants' direction by expertly challenging and encouraging their narrative (Tedeschi et al., 2018). A longitudinal study that focused on the relationship between emotional support and posttraumatic growth in cancer survivors found that the support given to cancer survivors just three months after being diagnosed predicted significant positive changes and outcomes eight years later (Schroevers, Helgeson, Sanderman, & Ranchor, 2010). While this is a medical example, it supports the idea that long-term positive change can be achieved with residential treatment when intentional and supportive relationships are formed. Furthermore, it provides insight into why it is crucial for therapists and staff to be patient and respectful as the participants cognitively process their repetitive narratives and evaluate their core beliefs (Tedeschi et al., 2018). Creating and maintaining a positive and supportive community culture at residential therapy programs will provide comfort and promote sharing, authenticity, and confidence, which may lay the foundation for long-term posttraumatic growth (Tedeschi & Calhoun, 2004).

Received and perceived support.

The quality of support participants receive impacts long-term posttraumatic growth. Received support is actual support given by someone else, which can either be helpful and comforting or, if unfulfilling and/or neglectful, can be detrimental (Gable & Gosnell, 2011). After receiving helpful and comforting support from the staff, participants can experience the positive benefits of opening themselves to receiving emotional support from others. By doing this, participants are able to build a social network of perceived support (Gable & Gosnell, 2011). Perceived support is the belief that support is available if needed (Gable & Gosnell,

2011). People who have experienced significant trauma, specifically in the forms of abuse, harassment, and/or neglect, often have feelings of distrust and/or tend to isolate themselves from others; however, by gaining trust and building rapport with participants, staff are able to model positive and healthy relationships. If participants are lacking in perceived support, they may fall back into negative patterns (Gable & Gosnell, 2011), and for this reason, it is crucial they utilize the skills necessary to build alternative perceived support systems. Believing one has a support system can be a more powerful preventative measure against stressors than actually receiving support (Gable & Gosnell, 2011). Studies show that seeking social support has a moderate association with posttraumatic growth and can intensify the benefits of intimate relationships that are formed following a trauma (Prati, & Pietrantonio, 2009). When in residential treatment, friend selection and staff involvement are the primary forms of social support for participants; however, it is very important that participants are guided in finding outside support systems once they leave the program.

Post-treatment support.

Throughout the residential treatment process, participants strengthen their physical and emotional regulatory skills and, in so doing, become less dependent on their staff (Autry, 2001). Residential therapy is intended to be used as crisis intervention, providing a safe environment for clients to focus on regaining health and wellness. While enrolled in a program, it is necessary for clients to form and maintain healthy habits that can be transferred to everyday life. Transferring knowledge of the benefits of supportive social systems to friends and family at home is imperative for promoting long-term change (Smalley & Winston, 2010). While in treatment, staff may have greater emotional intelligence than those at home, which means they are aware of themselves and the emotional needs of other people (Caruso, Salovey, Brackett, & Mayer, 2015);

however, friends and family members may not be as emotionally intelligent and, for this reason, participants must be prepared to handle responses that are not as intentional, caring, or supportive as they had been receiving in treatment.

Building and maintaining healthy and supportive relationships is important to general well-being and life satisfaction, but is also vital for developing posttraumatic growth (Tedeschi et al., 2018). As participants work through their treatment programs, perceived and received social support systems are established within the peer and staff cultures (Gable & Gosnell, 2011). Finding confidence and comfort in supportive treatment relationships can then be broadened and built upon through work and self-disclosure with close family and friends. Hopefully, intrinsic motivation to form intimate relationships will be recognized and participants will begin seeking positive cultures and environments at home, school, or at work, and find extra-curricular organizations to become engaged in post-treatment. Having an ongoing support system for continued self-disclosure will ensure the maintenance of healthy and supportive relationships for long-term posttraumatic growth and positive overall well-being (Tedeschi et al., 2018).

Meaning

The M in PERMA stands for meaning which refers to the search for, and presence of, a higher purpose in life (Seligman, 2011). Meaning is often looked at as the understandable patterns of life in which events, thoughts, and ideas are coherent and unsurprising (Martela & Steger, 2016). When traumatic experiences occur, life patterns and views can be disrupted, and even devastated, and posttraumatic growth may happen during the rebuilding of what makes life coherent (Tedeschi et al., 2018). Baumeister and Vohs (2002) agree that meaning, significance, and transformation can be drawn from negative life experiences by labeling adversity and

searching for the minute positive attributes, parallels, or understanding within situations (Baumeister & Vohs, 2002).

The process of searching for meaning can be strenuous and full of distress. As indicated in a study by Linley and Joseph (2011), the search for meaning is necessary to establish a presence of positive growth and meaning in one's life. People can, and often do, experience growth and distress at the same time (Triplett et al., 2011). Empirical evidence suggests that the search for meaning and the presence of meaning are very different processes. Studies show that the search for meaning is positively correlated to distress and depression, whereas the presence of meaning is associated with fewer distressful symptoms (Steger, Kashdan, Sullivan, & Lorentz, 2008). From these results, it can be understood that the process of searching for meaning in one's life can be confusing and difficult but, once meaning has been established, the distress decreases and well-being increases. A previously mentioned study (Cann et al., 2010) found that the positive relationship growth has on quality of life and the negative relationship depreciation has on quality of life also impact an individual's meaning of life. The authors theorize that understanding both the growth and depreciation aspects of post-trauma will better inform actual levels of meaning and well-being (Cann et al., 2010). A study by Triplett et al. (2011) found that people who were able to find understanding of and meaning in their trauma were more likely to experience posttraumatic growth. Conversely, those who claimed they did not care to find meaning, or gave up looking for it, showed lower levels of posttraumatic growth, and those who reported to still be struggling with the aftermath of trauma, but were still searching for meaning in the process, scored higher on the Posttraumatic Growth Inventory (PTGI) than those who ceased their search. What these findings suggest is that people are able to be in distress and experience posttraumatic growth simultaneously (Triplett et al., 2011). Participants who are

processing a trauma in a residential treatment program are expected to experience a certain amount of distress and, as a result, can be fully supported. While posttraumatic growth cannot be forced or required, the existence of support is imperative for creating an environment in which one can search for meaning and well-being (Tedeschi et al., 2018).

Baumeister and Vohs (2002) describe the need for purpose as being a major component of meaning and believe that people draw from various aspects of their lives in order to fulfill this need. In a study done by Triplett et al. (2011), a weak but significant correlation was found between having a sense of purpose due to posttraumatic growth and an increase in quality of life. Participants who have been admitted into a therapeutic program typically cannot identify their life's purpose, are displaying behaviors that act against their inherent values, and feel a lack of control and self-worth (Baumeister & Vohs, 2002). Presenting a safe environment for participants to consistently evaluate their understanding of their life experiences through the exploration of core beliefs, hope, spirituality, and mindfulness, instead of perseverating on negative behaviors and patterns, may be able to support their distressful search for meaning and, as a result, aid in developing overall life satisfaction and well-being (Peterson, 2006).

Hope.

Important to the search for meaning and purpose is having hope. Hope is the motivating agent for instilling positive internal change (Magyar-Moe & Lopez, 2015). Increasing hope through short- or long-term goals and interventions can have lasting effects on physical and mental health, including increased self-confidence, meaning, strength and resiliency, and stress-relief (Magyar-Moe & Lopez, 2015). Magyar-Moe and Lopez (2015) describe hope theory as the ability to stay motivated while setting, understanding, and creating strategies for reaching meaningful goals. The authors indicate that hope can be enhanced within a person in four ways:

hope finding, hope bonding, hope enhancing, and hope reminding. Hope finding is identifying the baseline of hope an individual possesses and creating goals and strategies to expand this baseline. Hope bonding, the authors observe, is the ability to connect with someone for collaboration and support in setting goals, evaluating feedback, and maintaining skills necessary for strengthening hope. Hope enhancing is learning and practicing the specific strategies used to reach the goals. Hope reminding is the ability to self-regulate one's hope strengthening process, including how to initiate and maintain strategies, identify and overcome barriers, and monitor progress (Magyar-Moe & Lopez, 2015). The agents and pathways of hope theory are essential strategies for goal accomplishment, especially when focusing on difficult or long-term goals. To maintain hope and motivation through the goal-setting process, one must practice hope enhancing and hope reminding skills. As participants in residential therapy programs progress through their treatment, their search for meaning can be long and challenging (Steger et al., 2008). If hope can be instilled within their search, it may alleviate some of the struggle.

Spirituality.

Spiritual development is one example of an avenue that may be utilized to rediscover hope in one's life. Tedeschi and Calhoun (1995) theorize that those who more frequently rely on their religious and spiritual beliefs seem to be better apt to handle adversity. Though residential treatment programs tend to focus more on emotional and behavioral healing and well-being, opportunities can be provided for participants to develop spiritually. Sheridan (2004) defines spirituality as not necessarily religious in an institutionalized form, but as an expression of meaning and connection within oneself, one's community, and the greater world. Developing one's sense of spirituality can lead to the formation of new coping skills and bring new views and beliefs into one's search for meaning (Vis & Boynton, 2008). Studies show that people who

place greater emphasis on the importance of spirituality demonstrate stronger abilities to manage crises and are more likely to experience posttraumatic growth (Shaw, Joseph, & Linley, 2005). This is a highly individualized theory (Vis & Boynton, 2008). Not everyone's spiritual views and needs are alike and not everyone wants to develop their spirituality. It is important that participants do not feel forced into a spiritual awakening, but rather that they feel supported in exploring different options during their search for meaning (Vis & Boynton, 2008).

Mindfulness.

Mindfulness meditation is a robust and adaptable platform on which to create and inspire spiritual development. As mindfulness meditation has become an increasingly popular therapeutic intervention, its positive benefits have been found to be particularly helpful for trauma survivors (Holzel et al., 2011). Per Holzel and colleagues (2011), mindfulness is a nonjudgmental awareness of the present moment that can increase one's attention, emotional regulation, body awareness, and self-perspective. Deliberately focusing attention away from emotionally distressing triggers and towards positive and healthy experiences will aid in the therapeutic recovery process (Holzel et al., 2011). Studies show that practicing mindfulness meditation can decrease negative mood states and increase positive mood states (Holzel et al., 2011). Being mindful helps participants gain control over their emotional reactions caused by negative or triggering thoughts (Smalley & Winston, 2010). Through mindfulness meditation, participants can increase body awareness and learn how to experience emotions without having physical reactions (Lee et al., 2009). Strengthening attention and improving alertness allows for an increase in emotional regulation and body awareness, thereby creating a healthier and more positive self-perspective and, consequently, encouraging posttraumatic growth (Labelle, Lawlor-Savage, Campbell, Faris, & Carlson, 2015). Labelle et al. (2015) found benefits associated with

mindfulness, posttraumatic growth, and spirituality. Many studies done on posttraumatic growth and mindfulness are carried out in medical settings. For example, in a meta-analysis of 11 empirical studies, conclusions supported the positive link between posttraumatic growth and practicing mindfulness (Shiyko, Hallinan, & Naito, 2017). Each study used the PTGI to track positive change in cancer patients throughout mindfulness intervention programs with the highest amount of positive change occurring in the appreciation for life category of the PTGI (Shiyko et al., 2017). Considering these findings, there is clearly a need for more research on mental health and mindfulness correlations as it relates to posttraumatic growth.

It is important to create opportunities for mindfulness routines, bearing in mind that practice and consistency are important to the longevity of positive outcomes (Shiyko et al., 2017). The benefits of mindfulness meditation are strongest when the participant engages in such practices voluntarily and, for this reason, while useful, it is important that mindfulness practices be encouraged but not mandated (Follette, Palm, & Pearson, 2006). The integration of mindfulness meditation into the residential treatment process could allow participants to gain skills for managing stress, which will have biological and emotional benefits, including improving brain function (Hurley, 2013). Practicing mindfulness is linked with reducing the negative effects stress can have on the brain, with increasing communication between the frontal and parietal lobes, and with increasing attention and memory (Hurley, 2013). Studies done on mindfulness and brain development reveal that mindfulness meditation can decrease stress-producing cortisol in saliva, increase the amount and density of white matter in the brain, and promote growth in nerve fibers and myelination (Hurley, 2013). Related to brain biology and function, mental agility is the process of being able to change perspectives and thought patterns that inhibit resiliency (Somerville, 2016). Young adults' prefrontal cortex, which is responsible

for regulating emotions, making rational decisions, and gaining cognitive control, continues to develop into young adulthood (Somerville, 2016). Mental health issues including the symptomology of trauma, can inhibit brain health (Giedd et al., 2015); however, residential treatment programs help participants implement mindfulness programming in order to promote brain development. The balance between healthy and unhealthy amounts of stress depends on how one perceives and reacts to stressors (Crum, Salovey, & Achor, 2013). Within the brain, unhealthy stress inhibits new brain cells from forming in the hippocampus, which leads to learning and memory impairments and can prohibit communication between the frontal and parietal lobes, thereby impacting attention. Fortunately, once unhealthy stress is managed and controlled, brain function will improve (Crum et al., 2013).

Experiencing a traumatic event is not a choice, but gaining a better understanding of the event and creating new perspectives of the future is in one's control (Vis & Boynton, 2008). Participating in reflective cognitive processing will allow participants to gain greater clarity over their trauma as a step towards beginning to develop more positive thinking patterns (Lindstrom et al., 2013). Creating emotionally safe communities and opportunities for participants to self-disclose is another option (Lindstrom et al., 2013). Mindfulness and life narratives that involve spiritual topics, such as beliefs, morals, and values, are also beneficial interventions to provoke deeper perspectives and introspection to promote growth while processing a traumatic experience (Labelle et al., 2015). Exploring these different intervention options will allow each participant to find activities, mantras, and areas of life that feel safe and instill hope. Having a sense of purpose and meaning can lead to a changed sense of priorities, which is another key element of posttraumatic growth (Tedeschi et al., 2018). For example, someone who has experienced an abusive romantic relationship may feel drawn to victim advocacy in order to give

back the knowledge found during his/her posttraumatic growth process. Another example would be a workaholic spending more time with family and friends after a near-death experience.

Recovering from a trauma is a long-term process, but once meaning is instilled, positive affect can increase, broaden, and build into coping strategies to be used when facing adversity in the future (Baumeister & Vohs, 2002) and when supporting personal meaning, spiritual development, long-term posttraumatic growth, and positive overall well-being.

Achievement

Lastly, the A in PERMA stands for achievement. Achievement is important for well-being because having goals and aspirations leads to a greater sense of accomplishment which, in turn, leads to numerous positive outcomes (Seligman, 2011). In order to develop posttraumatic growth, one must gain a greater sense of personal strength (Tedeschi et al., 2018). Developing self-efficacy, accomplishing goals, and cultivating character strengths will all aid in the increase of personal achievement and growth through a residential treatment process. Residential treatment programs can be designed to encourage strength development among participants and can personalize therapeutic interventions to meet each participant's individualized goals.

Self-efficacy.

Self-efficacy is the belief that one is capable of achieving one's goals (Maddux and Kleiman, 2017). According to Maddux (2009), if an individual has high self-efficacy, that individual is more adept at dealing with adversity and at responding appropriately to one's environment. Maddux (2009) argues that self-regulation, which improves as one's sense of self-efficacy improves, is useful as a means to anticipate reactions to future experiences, for prioritizing choices when setting goals, and for improving one's confidence as it relates to accomplishing these goals. Additionally, Schunk and DiBenedetto (2014) have found that

increasing self-efficacy may, in turn, increase one's intrinsic motivation. Being highly efficacious allows one to form more meaningful and intentional goals, thereby promoting an increased sense of accomplishment when these goals are achieved (Schunk & DiBenedetto, 2014). For example, when an individual experiences a failure, it is likely he/she will feel negative emotions; whereas, conversely, when he/she accomplishes something, it is likely he/she will feel positive emotions.

As the individual feels these positive emotions and, by extension, feels more successful, he/she is more inclined to feel competent (Maddux, 2009). As being successful, accomplishing tasks, and feeling competent are all aspects of improving one's sense of self-efficacy, it follows that engaging in treatment in a supportive and intentional way, particularly within residential treatment, can be very beneficial for the young adults participating in the program (Tsang, Hui, & Law, 2013). Positive self-efficacy is a strong predictor of one's personal success, both on an individual level and when part of a group. There are a multitude of ways one can increase self-efficacy, including developing new skills or improving existing skills, positive validation, taking opportunities for leadership and/or increased responsibility, and by cultivating important relationships (Tsang, Hui, & Law, 2013). By taking an intentional approach towards increasing one's self-efficacy, one can broaden and build upon those skills that are necessary for developing and achieving goals throughout residential treatment and, by extension, through life (Fredrickson, 2009).

Setting and achieving goals.

Learning how to set, implement, and accomplish long-term goals will encourage feelings of competency, autonomy, and self-efficacy within participants, thus promoting the development of intrinsic motivation towards these goals (Brown & Ryan, 2015). Flourishing is attainable

when young people who experience posttraumatic growth are able to create and implement long-term goals instead of focusing narrowly on the present moment (Arpawong et al., 2016). By understanding of Fredrickson's (2013) broaden and build theory, the ability to adapt and find positive coping strategies in adverse or traumatic situations can be learned and increased through accomplishing these goals, which will ultimately lead to higher levels of well-being and the ability to flourish (Fredrickson & Joiner, 2007). Establishing routines and creating long-term goals for positive well-being will aid in experiencing more positive emotions and building more resources which, taken together, can be turned into coping skills (Fredrickson, 2013). Those who take affirmative and consistent action towards their long-term goals exhibit even greater increases in positive well-being (Arpawong et al., 2016). This theory is supported by empirical work that shows how being supported and finding meaning in the pursuit of goals is linked to greater well-being (Diener & Fujita, 1995).

Character strength development.

In addition to setting long-term goals, character strength development is another very effective way to build on personal achievement through the posttraumatic growth process. In a study by Peterson, Park, Pole, D'Andrea, and Seligman (2008), a small yet meaningful correlation between posttraumatic growth, life satisfaction, and particular character strengths was found. The development of character strengths may prime participants at a residential treatment program to experience learned posttraumatic growth and increase overall well-being during the trauma treatment process. Character strengths are a common language used to describe personality traits that emphasize self-identity, contribute towards positive outcomes that are conducive to the common good, and are used to describe one's best attributes and qualities (Niemiec, 2017). After referencing hundreds of personality assessments and traits throughout

various cultures, a list of 24 character strengths was developed by Peterson, Seligman, and other collaborating colleagues over a span of three years (Peterson et al., 2008). The 24 character strengths are meant to reflect universal traits of virtue and morality that are transferable across cultures (Niemiec, 2017). Each of the 24 character strengths are categorized under corresponding virtues and are illustrated in the following chart:

Wisdom	Courage	Humanity	Justice	Temperance	Transcendence
Creativity	Bravery	Love	Teamwork	Forgiveness	Gratitude
Curiosity	Perseverance	Kindness	Fairness	Humility	Hope
Love of Learning	Honesty	Social Intelligence	Leadership	Self-Regulation	Appreciation for Beauty and Excellence
Judgment	Zest			Prudence	Humor
Perspective					Spirituality

Individuals can use the VIA Character Strengths Survey, a free, online, 120 item measure used to rank one's personal strengths from 1 to 24 based on one's perception of core attributes to determine one's strength rankings (Niemiec, 2017). This survey has been empirically tested and is both reliable and valid (Niemiec, 2017). The top five strengths on one's ranking are known as signature strengths. Park, Peterson, and Seligman (2004) suggest that an individual should focus primarily on the development of his/her top strengths because there is an internal balance within each character strength. For example, suppose participants are engaging in a rock climbing trip with staff and, as they reach the second pitch, thunder begins to rumble in the distance. The

storm may blow off in another direction or it may progress closer, endangering the group. The climbers must make a decision in that moment. While it is assumed that the rock climbers already have a high level of the character strength bravery, do they use this strength to continue climbing? Park et al. (2004) suggest that the climbers would be able to use all of the information and knowledge they have about climbing and mountain weather patterns in order to decide how to use their strength of bravery. After assessing the risk, continuing to climb could be foolhardy if the situation is dangerous; however, repelling down the mountain when there is thunder, on its own, does not actually present any danger could be considered cowardice. This example shows the rock climbers balancing their use of one strength, which differs from practical wisdom's theory of balancing multiple strengths. Schwartz and Sharpe (2006) define practical wisdom as the ability to balance character strengths with discernment during situations in which multiple strengths could be used. They suggest that practical wisdom is the key concept behind using and developing character strengths because strengths are not independent, but build off of one another. In the example of the rock climbers, the theory of practical wisdom suggests that the climbers would need to balance multiple strengths in order to make an informed and realistic decision. Schwartz and Sharpe (2006) also suggest that using practical wisdom to balance multiple strengths is linked to higher levels of life satisfaction and well-being. Park et al. (2004) suggest that the more of one strength a person has the better, and that higher character strengths are linked to higher levels of life satisfaction and well-being. Both strategies, developing signature strengths and learning how to balance various strengths, can be used to help people who have experienced trauma develop learned posttraumatic growth and increase overall well-being during the trauma treatment process.

Character strengths can be used to develop self-efficacy and resilience by building healthy patterns and coping mechanisms (Freidlin, Littman-Ovadia, & Niemiec, 2017). Niemiec (2017) suggests building signature strengths based on a three-part process. First, Aware: Becoming aware of your character strengths with the intention of getting to know yourself and your relationships with others better. Second, Explore: Assessing the initial reaction of one's strengths, understanding when strengths are used and which are taken for granted, and reflecting on behaviors to mobilize strengths in order to prioritize time and energy for a flourishing life. Third, Apply: Creating action items and goals for optimal use of strengths and learning how to build strengths to compensate for areas of growth.

Interventions for participants struggling with the effects of trauma can be formulated through Niemiec's (2017) three-part process of becoming aware, exploring strengths, and applying strengths for positive outcomes. Implementing the VIA Character Survey can allow participants to become aware of their strengths. The survey provides details and characteristics of each strength for deeper understanding (Niemiec, 2017). Participants may explore their strengths by debriefing with staff to understand how they have been using top strengths in the past, which strengths are optimally-used, overused, or underused, and how strengths effect current behaviors and decisions. Participants can learn how to understand and appreciate themselves and others through self-disclosure and through the lens of experiential strengths exploration, including reflective journal topics, mindfulness reflection, and group discussions with peers, staff, and/or family. Once the participants have a thorough understanding of their character strengths, an application plan can be created and implemented. Participants can decide which strengths are most important and create goals for incorporating optimal use of these strengths into daily life. This plan can include practicing strengths regularly in order to form positive habits, using

strengths in new ways regularly, and keeping track of the use of strengths and how they affect mood, behavior, etc.

In the previously mentioned study by Peterson et al. (2008), the character strengths showing the most significant positive correlation with posttraumatic growth are kindness, love, curiosity, creativity, love of learning, appreciation of beauty, gratitude, zest, bravery, honesty, perseverance, and spirituality (Peterson et al., 2008). Utilizing a healthy balance of these strengths can increase life satisfaction and flourishing (Freidlin et al., 2017). This is referred to as optimal use, which is the utilization of a healthy balance between each strength to increase life satisfaction and flourishing and decrease depression. The opposites of optimal use are referred to as underuse or overuse (Freidlin et al., 2017). Using too much or too little of any strength can lead to an increase in some mental health issues and a decrease in life satisfaction. Underuse has stronger negative outcomes than overuse (Freidlin et al., 2017). As participants are struggling with the emotional and behavioral effects of trauma, identifying underuse and overuse of strengths and working to develop a healthy balance may be appropriate interventions during the treatment process.

Active Constructive Responding.

Participants and staff can use a common, strengths-based language to positively affirm usage and development of said strengths. Active Constructive Responding (ACR) focuses on helping others to savor positive experiences and to consider how personal accomplishments can accentuate positive experiences in order to draw the deepest meaning and well-being from the moment (Gable, Gonzaga, & Strachman, 2006). These strategies can be used to emphasize, broaden, and build off of the sense of self-efficacy and character strength development each client is progressing towards.

For people who have experienced trauma, learned posttraumatic growth is an attainable path to a flourishing life. Posttraumatic growth promotes a greater appreciation for positive experiences and opportunities and aids in establishing self-efficacy and self-awareness within young people (Arpawong et al., 2016). Learning how to optimally use character strengths to broaden and build off of positive experiences and emotions may aid in the development of learned posttraumatic growth (Fredrickson, 2013). When young people who have been through a traumatic event learn to use their character strengths and to manage a balance between their positive and negative emotions, they may experience long-term posttraumatic growth, create lives of positive well-being, and begin to flourish (Fredrickson, 2013).

Assessment

It is not enough just to create environments where positive affect, engagement, relationships, meaning, and accomplishments are increased. It is important for therapeutic programs to measure positive outcomes to ensure quality and evidence-based services. Positive psychology has a variety of reliable and valid assessment tools which are free and available to the public (authentichappiness.sas.upenn.edu, 2017). Therapeutic programs could measure the amount of positive impact made on each participant by using any combination of these evaluation tools at pre- and post-treatment. Outcome data collections can show the decline of negative emotions and patterns present in participants and, also, the increase of positive emotions and patterns. By adding positive psychology assessments to the repertoire of assessment tools used to measure deficit, the field could provide evidence for the effectiveness, not only for stabilization with treatment, but also for promoting flourishing lives. The following measures are not the only assessments available in these particular areas of positive psychology and

posttraumatic growth, but are the ones that are seemingly most suitable for young adults in a residential treatment setting.

Referenced throughout this paper, the Posttraumatic Growth Inventory (PTGI) is a valid, reliable, and consistent, self-reported measure of perceived personal change and growth that develops and/or strengthens after experiencing a traumatic event (Tedeschi & Calhoun, 1996). The PTGI measures growth in the five categories discussed previously, including greater appreciation of life, a greater sense of personal strength, recognition of new possibilities or paths for one's life, spiritual development, and relating to others in a more intimate fashion (Calhoun & Tedeschi, 2004). These five factors were chosen based on existing literature and qualitative studies with the full knowledge that other areas of growth may exist (Calhoun & Tedeschi, 2004). In 2017, the PTGI was expanded on in the spirituality category for a more accurate measurement (Tedeschi, Cann, Taku, Senol-Durak, & Calhoun, 2017). The PTGI can be used to measure posttraumatic growth through the treatment process by administering the assessment pre- and post-program stay and, for post-treatment follow-up, to examine longevity of growth. It can also be utilized to inform which growth factors are developing the most and least amount in order to guide treatment to focus on, and to meet, individualized needs.

The PERMA-Profilers is a multidimensional and valid, reliable, and stable assessment used to measure overall well-being through Seligman's (2011) five PERMA domains as separate constructs (Butler & Kern, 2016). This assessment is meant to inform users of their levels of well-being in positive affect, engagement, relationships, meaning, and achievement in order to adapt accordingly to current well-being needs, strengths, and weaknesses (Butler & Kern, 2016).

The Outcome Questionnaire (OQ) is a self-report assessment used to measure clinical progress through a treatment process and upon completion of the program. The Youth Outcome

Questionnaire (Y-OQ) is a shorter version of the OQ, constructed for people ages 4 to 17 (Wells, Burlingame, Lambert, Hoag, & Hope, 1996). Both assessments are sensitive to emotional, behavioral, and relational changes that occur over periods of time (Wells et al., 1996). The National Association of Therapeutic Schools and Programs (NATSAP) and affiliated treatment programs have collected OQ and Y-OQ data from thousands of participants pre-treatment, upon discharge, and at post-treatment follow-ups and have found that significant and lasting positive change does occur in therapeutic residential treatment (Behrens, Santa, & Gass, 2010). Utilizing the OQ and/or Y-OQ in addition to the PTGI can add information and understanding of the relationship and patterns between mental health outcomes and posttraumatic growth. Using these measures could offer valuable data and insight to residential treatment, especially within the young adult population (Wolchik et al., 2008).

The Positive and Negative Affect Schedule is a cross-culturally validated and reliable 20-item assessment used to measure affect, including increases and decreases in one's affect overtime (Edmund, 2007). This assessment gives a snapshot of current positive and negative tendencies and emotions, allowing for growth and change to be measured over the span of treatment (Seligman, 2002/2013).

The Flow Scale is an eight-item, self-report assessment used to identify Csikszentmihalyi's (1990) identified flow elements (Bonaiuto et al., 2016). This assessment tool can be used to assess the presence of one's flow state after engagement in an activity. The information provided by this assessment can be used to guide appropriate activity and goal selection and provide insight into one's level of intrinsic motivation (Bonaiuto et al., 2016).

The NIH Toolbox Adult Social Relationship Scale is an internally reliable and consistent assessment measuring six aspects of social relationships, including emotional support,

instrumental support, friendship, loneliness, perceived rejection, and perceived hostility (Cyranowski et al., 2013). This scale does not provide information on all aspects of social relationships, but it does give key insights into social support, which is pertinent information for participants in a residential treatment setting (Cyranowski et al., 2013).

The Meaning in Life Questionnaire measures both the current levels of the search for meaning and the presence of meaning (Steger, Frazier, Oishi, & Kaler, 2006). This can be a helpful, internally consistent, tool to be used for tracking participants' progress through their search for meaning in a more tangible way. It is notable that The Meaning in Life Questionnaire is not a diagnostic tool, but rather it is a guide to inform knowledge of and aid in the understanding of meaning in one's life (Steger et al., 2006).

Reviewed in detail in the Achievement section of this paper, the VIA Character Strengths Assessment is used to determine one's top character strengths, which can be used to guide the development and optimal use of said strengths, to promote higher achievement in various aspects of treatment and life (Niemic, 2017). Achievement can also be measured through task and goal performance review (Brown & Ryan, 2015).

By using various assessment tools to focus on the participants' positive gains, along with their decline in negative affect, patterns, and behaviors, therapeutic programs will be more equipped to promote lasting positive change. Students will have lower relapse rates, an improved quality of life, and a more robust skill set for dealing with future adversity. If therapeutic programs incorporate intentional elements and activities for increasing positive affect, engagement, and meaning within their programs, students will have increased and lasting levels of overall well-being, as evidenced by the scores from collected positive data outcomes.

Challenges and/or Limitations

The idea of merging positive psychology and posttraumatic growth theory and practice is not a new concept, but there is limited empirical data on the subject and more studies need to be conducted in order to understand the evidence-based benefits of this idea. With this in mind, there are existing limitations and challenges with posttraumatic growth as a theory. One challenge is understanding whether posttraumatic growth is real or perceived. Fraizer et al. (2009) and others have looked at perceived and real posttraumatic growth and argue that the PTGI is unable to predict measurable and real growth. Calhoun and Tedeschi (2004) combat this idea by suggesting that whether posttraumatic growth is real or perceived, it is still shown to have a lasting positive impact and change on psychological processing and functioning. Though there is more research to be done on the correlation between posttraumatic growth and mental health, Tedeschi et al. (2018) postulates that within all qualitative studies and measures there is room for error related to participant perception and, as such, posttraumatic growth is similar to other psychological studies that rely on observation and self-report. Zoellner and Maercker (2006) speculate that posttraumatic growth can have an illusory component in which people can talk themselves into believing they are experiencing positive growth and change when, in actuality, their actions do not support real growth. Coyne and Tennen (2010) support this notion for posttraumatic growth and positive psychology, arguing that scientific change cannot be based on illusory optimism. Calhoun and Tedeschi (2004) counter this idea by stating that posttraumatic growth has very little correlation with optimism. They suggest that optimism does not predict posttraumatic growth, but can, nevertheless, be helpful when cognitively processing, analyzing, and prioritizing information about the impact of a traumatic event. Studies also show that immediate reports of posttraumatic growth may be correlated with poor adjustment later and initial imagined growth can be correlated with real growth in the future (Calhoun & Tedeschi,

2004). This suggests that perceived growth can be just as helpful as actual growth if intentionally fostered throughout a long-term growth process, which could make a one-to two-year residential treatment program an ideal setting for supporting the posttraumatic growth process. There is a need for more studies directly focusing on posttraumatic growth and the young adult population. Creating a posttraumatic program for young adults could provide a platform for future studies to take place.

Another challenge with posttraumatic growth theory is that there is skepticism around using posttraumatic growth as an intentional treatment modality. As stated previously, more research is needed to understand the relationship between mental health and posttraumatic growth (Calhoun & Tedeschi, 2004). Facilitating posttraumatic growth cannot be forced, prescribed, or expected (Tedeschi et al., 2018). Tedeschi et al. (2018) encouraged the idea that, when working with people who have experienced trauma, the relationship the interventionist forms with the participant is more important than the chosen treatment modality, especially in an intensely individualized treatment plan. It is crucial to build strong rapport and establish a healthy therapeutic alliance in order to create a treatment plan based on individualized needs (Tedeschi et al., 2008). With the clinical population that is enrolled in residential treatment, specifically considering co-occurring mental health disorders and other related issues, it may be suitable to use multiple trauma-informed therapeutic strategies and less traditional, more experiential and creative, therapies along with positive psychology and posttraumatic growth theory and interventions.

More studies are needed to show the effects positive residential treatment programs can have on participants (Calhoun & Tedeschi, 2004). Tedeschi and Moore (2016) evaluated an existing short-term program intended to support posttraumatic growth for military veterans and

found it to be beneficial. They discussed the advantages of how private programs are able to be flexible when using less traditional forms of treatment, have more freedom to adapt and evolve services, which in turn, will create diverse perspectives and enthusiasm towards the mental health field. These benefits could be applied to a long-term residential treatment program as well, though there remain challenges to be aware of when exploring programs that support posttraumatic growth. For example, funding is a challenge to consider (Tedeschi & Moore, 2016); however, private-pay, insurance reimbursement, grants, and donors are all options to consider.

Staff well-being and vicarious posttraumatic growth is another area to explore (Tedeschi et al., 2018). Maintaining positive growth and taking an eudaimonic approach to well-being post-treatment will need to be intentionally facilitated in order to ensure lasting positive change and functioning. Educating family and friends of participants about posttraumatic growth and positive psychology could aid in the ease and effectiveness of transitioning someone out of a treatment program.

Considering these limitations, challenges, and areas for future expansion, there is room for more empirical research and literature to support the idea of finding benefits in applying positive psychology theory, research, and practices to mental health residential treatment in order to create an environment of well-being to stimulate organic posttraumatic growth in young adults who have experienced trauma.

Conclusion

Understanding the theories and practices of positive psychology, particularly as they relate to eudaimonic well-being, can be used to inform strength-based and goal-oriented treatment practices. By focusing on the well-being of participants in a mental health residential

treatment program, both stability and wellness can occur. Participants have the right to not only regulate and recover from their issues and disorders, but also have the right to thriving and flourishing beyond their original emotional and behavioral baseline. Given the empirical data and literature review covered in this paper, the idea of cultivating well-being in residential therapy can be particularly useful for those who have experienced a significant traumatic event and are struggling with posttraumatic stress.

Creating a supportive environment focused on the five pillars of well-being can be an empowering opportunity for people who are struggling with the emotional and behavioral impacts of trauma to cultivate posttraumatic growth when they would not have had the opportunity to do so on their own. Positive affect can be used to create self-awareness of emotions, broaden and build on positive and empowering emotions, and learn how to self-regulate accordingly. Engagement can be used to explore new activities and ideas that can aid in the re-writing of ones core beliefs. Relationships may be used to support self-disclosure of the traumatic event in a trusting and healthy manner. Meaning can be used to assist in the understanding of the traumatic event and provide hope for future life aspirations. Finally, accomplishment may be used to encourage the development of strengths, create and maintain goals, and acquire self-efficacy. Throughout the utilization and development of these five pillars of well-being, people who have experienced trauma can begin to cognitively process the trauma, re-write their life narrative, and set new and appropriate goals for their future. Residential therapy can be a beneficial environment to create a safe and healthy culture in which to establish positive well-being and posttraumatic growth.

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